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GRADING DRESSED TURKEYS



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FROM THE PRODUCER'S standpoint, the correct grading of turkeys is a very important factor in the success of his enterprise. Without dependable grading, successful marketing is practically impossible, and without successful marketing, little profit may be expected.

Whether the producer grades his own turkeys or has this done by a licensed grader, a familiarity with the grade descriptions and how the grades are applied will create a mutual understanding and be a source of satisfaction to producers, graders, and buyers.

How to grade according to Government standards can be learned by any producer who makes a thorough study of the grade factors involved. This bulletin attempts to point out by description and illustration the most important of these factors.

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GRADING DRESSED TURKEYS

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IMPORTANCE OF CAREFUL GRADING

THE MARKETING of poultry is highly competitive in the terminal wholesale markets. There is always a demand for turkeys of good quality, but stock of poor quality is sold to the less discriminating trade at lower prices. The "straight-run" pack of turkeys is no longer in demand, for buyers are coming more and more to require uniform and careful grading.

Even turkeys of good quality have little sales appeal unless the birds are carefully graded and packed. Some buyers want only small turkeys, some want medium-sized, and others want the heaviest that can be obtained. Some prefer hens; others, young toms. Some want only the highest quality obtainable, whereas a few want medium-priced or low-priced stock.

To satisfy these varying demands, the careful packer should grade his turkeys strictly in accordance with definite standardized grades, so that a buyer who wants a number of turkeys of a certain weight and grade will not be obliged to buy several boxes or barrels in order to get what he needs. A few birds of second or third grade in a box or barrel of fine turkeys are likely to reduce the price of the entire pack. Careful grading and correct methods of packing usually enable the producer or shipper to establish a reputation for his produce, which is reflected in an increased demand for it and in larger profits for him.

ADVANTAGES OF USING GOVERNMENT STANDARDS FOR DRESSED TURKEYS

The universal acceptance and the correct use of the grades in the Government standards for dressed turkeys, certified by graders super-

vised by the Government, should benefit producers, dealers, and consumers. It would assure the producer a just and uniform grading, making it possible for him to market his turkeys on a basis commensurate with their quality. The producer of high-quality turkeys should receive an adequate price and should not be penalized by the lower price paid to the producer of poor quality as often occurs when turkeys are bought on a straight or ungraded basis, for when the buyer purchases an ungraded lot he must make enough on the better birds to offset his losses on the undergrades.

When turkeys are sold subject to grading by the buyer, the producer is at a loss to know how the buyer will grade them. When the crop is short or a rising market appears probable, there is a tendency for most buyers to grade freely in order to place as many turkeys as possible in the top grade. When the market is declining, commercial grading is usually rigid, and many turkeys that should be placed in the top grade are placed in a lower grade.

The Government standards, on the other hand, remain unchanged at all times regardless of market conditions or seasons, and the Government grades are so supervised that the producers are assured of uniform grading when the Government standards are used (p. 3). Since the grading work was begun, under Government supervision, the quantity of dressed turkeys graded has increased each year. Approximately 30,000,000 pounds are now graded annually.

A notable result of the grading program has been the improvement in the quality of the birds offered for sale by producers who have sold their turkeys under this system of grading for several seasons. Almost without exception, the percentage of those that qualified for the top grades has increased each year. In some States where barely half the crop was in the U. S. Prime grade at the beginning, the percentage of birds of U. S. Prime grade has increased to between 70 and 80 percent, and it is not unusual now in some States for more than 90 percent of the turkeys sold by grade to be U. S. Prime.

The advantages of uniform grading according to uniform standards are almost as great for the country packer and shipper and the city dealer as for the producer. Under the usual commercial conditions the terminal-market receiver is handicapped in buying turkeys because he is seldom certain of the quality being offered, especially when he buys at country shipping points that are too distant to permit personal inspection. The producer's or shipper's idea of a "fancy" or a "choice" turkey may not conform to the idea of the receiver or buyer. Commercial ideas of grading differ in different sections of the country, sometimes among different packers in the same section. In some markets, it may happen that no two packs of turkeys received have been graded according to the same standards.

If Government standards and uniform methods of grading and packing were generally adopted, buyers would have more confidence when making their purchases, and producers and shippers, knowing their product would be graded by a qualified disinterested grader, would have less hesitancy in offering their turkeys for sale on a graded basis.

When disputes arise between buyer and seller, the producer, as well as the receiver, has recourse to an official regrading of the

turkeys at terminal markets as part of the United States grading service. This regrading service has saved producers thousands of dollars and has safeguarded the receivers, who are often required to pay for car-lot shipments of turkeys before they are unloaded.

From the standpoint of the consumer, a tag that gives the correct grade is a valuable guide in the selection of a turkey. The producer should always bear in mind that it is the consumer's willingness or ability to pay that finally decides the price the producer will receive. Therefore, consumers must be satisfied if turkey production is to be profitable. The best way to satisfy consumers is to make sure that each one always gets the grade of turkey she pays for.

The average housewife buys a turkey only once or twice a year and usually is not so well informed regarding the factors that make for quality in a dressed turkey as she is regarding other meat products. Consequently she feels more confidence in her selection if the bird is labeled with a tag that shows its real grade.

UNITED STATES STANDARDS FOR DRESSED TURKEYS

The United States standards for dressed turkeys provide for both classes and grades. Besides this, certain other factors are to be given consideration when classing and grading are being done. The standards have been tested under actual operation for 10 years, and slight revisions have been made from time to time in the light of actual experience.

UNITED STATES CLASSES FOR DRESSED TURKEYS

The United States standards for dressed turkeys provide four classes: Young Hens, Old Hens, Young Toms, and Old Toms.

SCHEDULE OF CLASSES, SUBCLASSES, AND GRADES FOR DRESSED TURKEYS

Age and sex classification	Dressing and packing classification	Grades
Young Hens----- Subclass: Yearling Hens.	Plucking: Scalded----- Semi-scalded----- Dry plucked----- Dressing: Drawn----- Undrawn----- Finish: Milk-fed----- Grain-fed-----	U. S. Special, or U. S. Grade AA.
Young Toms----- Subclass: Staggy Toms.	Chilling: Fresh dressed----- Fresh hard chilled----- Storage----- Packing: Dry----- Iced-----	U. S. Prime, or U. S. Grade A.
Old Hens-----		U. S. Choice, or U. S. Grade B.
Old Toms-----		U. S. Commercial, or U. S. Grade C.

These four classes are necessary because different values are attached to the respective grades. The young birds are always worth more than the old; certain classes of trade prefer hens; others prefer toms. For the preseason or postholiday trade, the large toms are usually most in demand, for at those seasons most of the turkeys are used by restaurants and hotels, which prefer large birds. For the Thanksgiving and Christmas trade the hens and small young toms are usually in most demand as most of the turkeys for the holiday trade are retailed for family use.

Young birds can be detected by the appearance of the flesh and by the flexibility of the breastbone. The flesh of the young bird is fine-grained and soft, whereas that of an old turkey is coarse, somewhat darkened, and tough. The tenderness of the flesh can be determined by pressing the flesh of the breast between the ends of the thumb and forefinger. If the bird is young, the flesh can be easily penetrated, and the thumb and finger will easily press through to the breastbone. If the flesh is hard and "rubbery" it is an indication of greater age, and more roasting will be required to make it tender.

The end of the keel bone of the young turkey is composed of cartilage and is soft and flexible. By feeling of this bone the age of the turkey can be easily ascertained. If the turkey is young the end of the bone or cartilage should be flexible—should move easily back and forth. If the bone is hard and rigid so that it cannot be moved, the cartilage has hardened into bone, and the turkey is classed as Old.

Further indications of age are evidenced by the appearance of the skin. Old turkeys usually have a coarse skin, and unless they are very fat the skin is loose and flabby, whereas the skin of the young turkey adheres more closely to the flesh and is soft and velvety. Feather follicles in the skin of the old birds are deeper and farther apart, giving the skin a rough, uneven appearance.

CLASSIFYING YEARLING HENS AND STAGGY TOMS

It is not difficult to differentiate between a very old turkey and a very young one, but there are many turkeys of intermediate age, such as yearling hens and staggy toms, that may be difficult to classify. Usually a turkey is classed as Young until it reaches 1 year of age, but this is not always the case. The breastbone of a young hen nearing 1 year in age is usually rather rigid, and the flesh begins to take on the characteristics of an old hen. Breeding and laying have a tendency to harden the flesh of the hen turkey; and while it is true that many young hens begin laying at 5 or 6 months of age and are still soft-meated, the characteristics of an old hen soon show after the laying season begins. Hens that have been laying have a greater width between the pelvic bones, and the vent is moist and somewhat enlarged. Where these conditions are apparent the usual practice is to classify the turkey as Old, especially if the keel bone has become somewhat rigid and the flesh is coarse and darkened. Where the turkey appears to have tender flesh, even though the keel bone is only slightly flexible, the bird is classified as Young. Usually a hen turkey will not take on excessive fat until the second year. When such fat appears, it is a fairly good indication that the turkey should not be classed as Young.

The correct classification of a young tom nearing maturity is highly important, because the age of a young tom, unlike the age of a young hen, is an important factor in the grading of the bird. For example, a hen nearing maturity may be classed as Old or Young without the grade being affected, but a young tom nearing maturity is usually classed as Young but is not permitted in the grades above U. S. Choice. One of the first indications of approaching maturity is spur development. Spurs appear as little knobs on the legs long before the flesh has become hardened and are not always an indication of age. A young tom should never be graded down on account of spur development alone. Rather the appearance of spurs indicates that a close examination of the bird is desirable. As long as the meat is soft and fine-grained and the keel bone is flexible the turkey should be classed as Young. As a young tom develops, the skin of the breast becomes soft and flabby, and, as development further progresses, it becomes badly puffed and pouchy. After this condition develops, the turkey may still be classed as Young if the meat is still somewhat softened, but the turkey should not be graded higher than U. S. Choice. If the breast is only somewhat softened and not puffed, the turkey may be graded as U. S. Prime.

Occasionally a turkey is found in which sexual development is such that classifying it is difficult. The body may be long and rangy and have the appearance of that of a young tom, while the head may be fine-cut and narrow, as characteristic of a young hen. By an examination of the vent of such birds, as is done in sexing baby chicks, the true sex can usually be determined. It is usually best to place such a turkey in the class to which its body most conforms, so that the appearance of the pack will not be spoiled by a lack of uniformity of body shape.

SUPPLEMENTAL CLASSIFICATION FOR TURKEYS

Other conditions, which relate to plucking, dressing, finish, degree of chilling, and packing, make it necessary to establish further classifications.

Plucking.—Three methods of plucking the feathers from turkeys are used: The full-scald, the semiscald, and the dry-picked. Each of these methods has a direct bearing on the appearance and keeping quality of the turkeys. Therefore, in classifying and grading dressed turkeys the method by which the carcasses have been plucked should be taken into consideration.

The full-scald method is used mostly when producers dress and market their turkeys locally. The carcass is immersed in water heated to a temperature of from 170° to 180° F. The hot water opens the skin pores, makes the skin very tender, and lowers the keeping quality of the bird. The effects of full scalding are so damaging to the skin, that turkeys which have been plucked by this method are not permitted in the grades U. S. Special and U. S. Prime.

The semiscalded method is used chiefly by dressers at country packing plants. The carcass is immersed for about 30 seconds in water heated to a temperature of from 125° to 128° F. For satisfactory results the temperature of the water must be within this range. An operator should not attempt to use this method unless he is properly equipped and has acquired a knowledge of its operation through an

experienced workman. The method has many advantages over full scalding and dry picking. The skin is not injured, and resulting conditions are such that the pinfeathers are readily removed.

The dry-picking method of plucking is used by both producers and packers who ship to distant markets, and in most sections of the country turkeys are dry-plucked for the local markets. No water is used. The feathers are loosened by piercing the lobe of the brain which controls the feather muscles. The producer who dresses his own turkeys will find this method of plucking the most satisfactory and should not attempt any other method without the advice of a skilled operator.

Dressing.—Dressed turkeys are marketed either drawn or undrawn. At present nearly all are marketed undrawn, that is, the head, feet, and entrails are not removed. During the last few years, a considerable quantity of other classes of poultry—mostly chickens and fowl—have been marketed drawn, and some turkeys are now so marketed. If this form of dressing proves as desirable as now seems possible, it will be only a matter of time before full-drawn turkeys will be very usual on the market. When full-drawn Government-graded turkeys are graded, the same specifications are used as for undrawn. Drawn turkeys that are not Government inspected cannot, under the Government regulations, be subsequently Government graded.

Finish.—The kind and quality of feed received by turkeys has an important bearing on the quality of the meat. The United States standards recognize two kinds of finish—milk-fed and grain-fed. Some markets prefer milk-fed turkeys; others prefer grain-fed.

Milk-fed turkeys have bleached skin and flesh; the skin has a soft, velvety appearance and is very light in color; the muscle fiber is softened by fatty deposits throughout the connective tissue.

Grain-fed turkeys do not show any marked evidence of milk feeding and usually have a cream-colored or yellow appearance. Unless the skin is fully bleached, the turkey should not be classed as milk-fed but should be included in the class of grain-fed.

Chilling.—Turkeys may be marketed as fresh-dressed, fresh hard-chilled, or storage stock. The chilling condition of turkeys should be taken into consideration when they are graded. Fresh-dressed turkeys are those that have not been either hard-chilled or hard-frozen. Fresh hard-chilled turkeys are those that have been hard-chilled but not frozen long enough to develop the appearance of cold-storage stock; they must not have been held in storage more than 60 days. Storage turkeys are those that have been held at a low temperature for 60 days or more or show evidence of deterioration from freezing regardless of the length of time held. The most noticeable effects of storage on poultry are dryness of skin and loss of body bloom. Dry, scaly spots, known as "freezer burn," may also be present on the surface of the skin, and the eyes may be shrunken and discolored. The blood around the cavity of the mouth or where the bleeding cut was made is dark brown in color instead of red and usually has an unpleasant odor.

Packing.—Two refrigerating mediums are used to keep the turkeys in good condition during transit to market. One is ice, and the other is cold air. Dressed turkeys that have been packed in ice are known as ice-packed; those that have been subjected to cold air are

known as dry-packed. Because the contact of ice with the carcasses is injurious to their keeping quality and to the appearance of the skin, dressed turkeys that have been refrigerated by this method are not permitted in the U. S. Special and U. S. Prime grades. When dry packing is used, the air is cooled by ice or by mechanical refrigeration; the turkeys are kept dry and do not come in direct contact with the ice.

UNITED STATES GRADES FOR DRESSED TURKEYS

The United States standards provide four grades for the dressed turkeys in each of the four classes: U. S. Special or U. S. Grade AA, U. S. Prime or U. S. Grade A, U. S. Choice or U. S. Grade B, and U. S. Commercial or U. S. Grade C.

U. S. Special or U. S. Grade AA is the highest grade. To be placed in this grade, a carcass must be a commercially perfect specimen of any of the four classes of dressed turkeys. The requirements for this grade are high; only a very small proportion of the turkey crop will qualify for it. Birds of this grade are found mostly in the output of commercial producers who employ careful feeding and management methods. Dealers and packers who buy from producers miscellaneous lots of dressed turkeys, after they have been shipped a considerable distance, packed and refrigerated, are not likely to find any carcasses that qualify for this grade. The few turkeys of this quality that are received in such lots can usually be packed to best advantage with those of the U. S. Prime grade for it is not worth while to segregate them into a separate pack.

U. S. Prime, or U. S. Grade A, is the grade that represents the second-highest quality according to the United States standards. In the markets it is commercially considered as "top" quality because it is the highest grade obtainable in commercial quantities.

Most of the birds on the markets grade U. S. Choice, or U. S. Grade B. These turkeys are considered commercially to be of very fair quality and usually command a price that is within 2 or 3 cents a pound of the price received for turkeys of the U. S. Prime grade.

U. S. Commercial, or U. S. Grade C, is the lowest grade. Any edible turkey may be included in this grade except those that are excluded by the detailed descriptions for this grade.

QUALITY DESCRIPTIONS OF THE INDIVIDUAL GRADES

U. S. Special grade, or U. S. Grade AA.—The first thing to consider in deciding whether a turkey is of high enough quality to grade U. S. Special is the quantity of flesh on the carcass. The grade U. S. Special calls for a full-fleshed bird. This means that the carcass must have a broad, full-meated breast and that the back and all bones must be fully covered with fat. The meat of the breast should be even with the breastbone and flat across the top rather than pointed. Turkeys that are full-fleshed have very little of the characteristic dark meat showing through the skin. Turkeys of the male sex have narrower breasts than those of the female sex; therefore, a U. S. Special tom turkey would have a breast full-fleshed only in accordance with the characteristics of the sex.

In the case of either young hens or toms, the flesh of the bird must be soft, fine-grained, and tender and have a translucent appearance.

This is usually true of all young birds that have been properly fed. But if young birds have been allowed to run at large, the constant exercise in search of food hardens the muscle fiber and makes the bird coarse and hard-fleshed, which causes the carcass to be placed in a grade below U. S. Special.

Turkeys that grade U. S. Special must be especially well dressed. The feathers must be completely removed from the carcass, and all noticeable pinfeathers must be removed. The butts, heads, and feet must be clean. There must be no feed in the crop that can be detected by feeling or by sight, for any kind of feed is likely to ferment and sour the flesh of the bird. Very slight skin abrasions are permitted if they are not on the breast. There must be no tears in the skin, and even slight discolorations and skin bruises are not allowed on the breast. No flesh bruises are permitted on any part of the carcass. A flesh bruise may be distinguished from a skin bruise by moving the skin from side to side. A skin bruise is a blood clot attached to the underskin and will move as the skin is moved. If the blood clot is stationary and does not move with the skin the bruise is a flesh bruise and is not permitted in the U. S. Special grade, even if it occurs on the wing tip or on the back.

A dented breastbone is usually spoken of as a notched breast and is not to be confused with a crooked breast. If the dent is not more than one-eighth of an inch in depth it is not a disqualification for this grade. The depth of the dent can be measured by placing a straight piece of cardboard or a straightedge along the top of the breast and then with a rule measuring the depth of the depression.

Crooked breastbones or other deformities, such as swollen joints or crooked backs, are causes for disqualification in the grade of U. S. Special. No broken bones, open tears, or sewed skin are permitted.

Because of the poor appearance of scalded and ice-packed turkeys and because their keeping qualities are not as satisfactory as dry-picked and dry-packed birds, they are not graded as U. S. Special even though they would otherwise qualify for that grade. (Fig. 1, A.)

U. S. Prime grade, or U. S. Grade A.—Turkeys that are well-fleshed but not necessarily full-fleshed are included in the U. S. Prime grade—also those that are full-fleshed but have dressing defects that are permitted in the U. S. Prime grade but not in the U. S. Special grade, are included. The young birds must be soft-meated and tender. They must be well-fleshed throughout, with back, hips and bones well-covered with fat. The hip fat and the breast fat must be connected with fatty tissue over the abdominal region. The bleeding requirements are almost as strict for the U. S. Prime as for the U. S. Special grade. More pinfeathers may be permitted, especially if scattered over different parts of the carcass other than on the breast. The breast must be practically free from pinfeathers, and, as in the case of U. S. Special, there must be no feed in the crops.

Slightly discolored skin or small skin bruises and abrasions do not disqualify a carcass for this grade unless they are on the breast. Small flesh bruises may be included if they are not over one-half of an inch in diameter and are not on a heavily fleshed part of the carcass. In this grade the dent in the breast may not exceed one-fourth of an inch in depth, in contrast to one-eighth of an inch in

the U. S. Special grade. A crooked breast bone is not permitted, and if the bone is so curved that it will interfere with the slicing of the meat, the turkey must be placed in a lower grade. No deformities

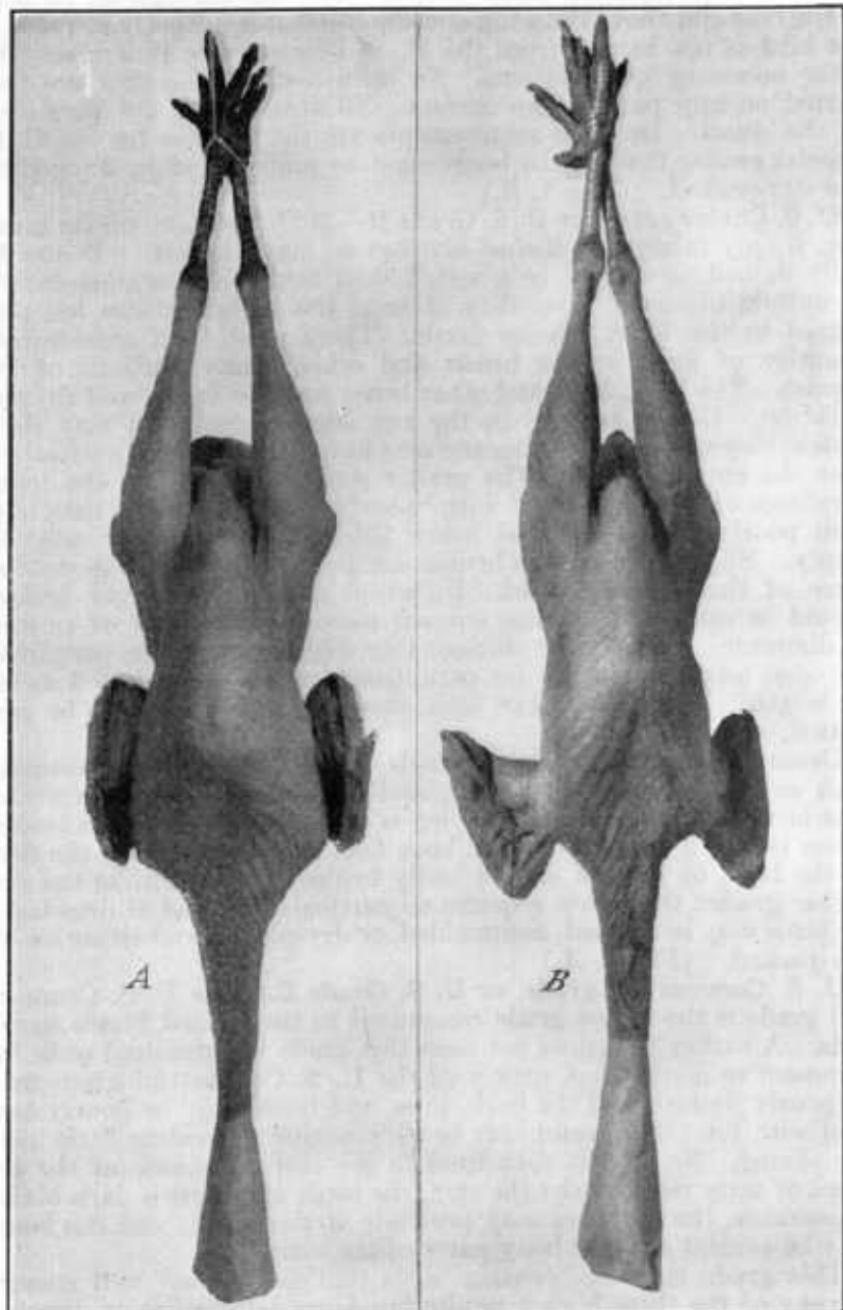


FIGURE 1.—Special and Prime grades of turkey. A, U. S. Special, or U. S. Grade AA, young hen turkey. The breast is broad and full, the hips are well rounded, and the entire carcass is fully covered with fat. B, U. S. Prime, or U. S. Grade A, young hen turkey. This turkey is well-fleshed but somewhat narrow over the hips. The carcass is well covered with fat.

of any kind are permitted. Wings broken above the wing tip or broken legs are not permitted. One disjointed leg or wing is permitted if it is not bruised at the joint. If the crop is properly removed (that is, if the entire crop is taken out through an incision in the rear and above the wing and the incision is properly sewed up) the bird is not barred from the U. S. Prime grade if it meets the other necessary qualifications. No open tears in the skin are permitted on any part of the carcass. No sewed tears are permitted on the breast. Dressing requirements are the same as for the U. S. Special grade; that is, the birds must be semiscalded or dry-picked and dry-packed. (Fig. 1, *B.*)

U. S. Choice grade, or U. S. Grade B.—A U. S. Choice turkey is one that is only fairly well fleshed and has no major defects. It may be fully fleshed, or it may be a well-fleshed bird that has such defects or deformities as to disqualify it from the higher grades but permitted in the U. S. Choice grade. There must be a considerable quantity of meat on the breast and other meaty portions of the carcass. The back, hips, and other bones must be fairly well covered with fat. Unlike turkeys in the two higher grades, it may show some evidence of poor bleeding and may have some scattered pinfeathers over the entire carcass. The grader should not confuse the terms "evidence of poor bleeding" with "poorly bled." Turkeys that have been poorly bled are placed below this grade. The crop must be empty. Slight flesh or skin bruises are permitted, but not more than three of them to each bird. In actual grading, "a slight bruise" should be construed to mean one not more than one-half of an inch in diameter. Slight skin abrasions or discolorations are permitted. No open tears in the skin are permitted that are more than 3 inches in length. Tears that have been properly sewed up may be permitted, even on the breast.

Dented or slightly crooked breastbones or other slight deformities such as misshapen wings or legs and crooked backs are permitted. One broken wing or one broken leg is permitted if the leg is broken below the hock or if the broken bone does not protrude into the flesh of the bird, or has not caused badly bruised flesh. Unlike the two higher grades, this grade requires no particular method of dressing—the birds may be scalded, semiscalded, or dry-picked, and either ice- or dry-packed. (Fig. 2, *A.*)

U. S. Commercial grade, or U. S. Grade C.—The U. S. Commercial grade is the lowest grade recognized in the United States standards. A turkey that does not meet this grade is considered unfit for shipment to market. A turkey of the U. S. Commercial grade may be poorly fleshed, and the back, hips, and bones may be poorly covered with fat. The breast may be very narrow providing little meat for slicing. No feed is permitted in the crop. Because of the absence of fatty tissue under the skin, the birds may have a dark-bluish appearance, the hipbones may protrude at the points, and the bones may be evident at other bony parts of the carcass.

This grade may also contain birds that are fleshed well enough for any of the three higher grades but have deformities or dressing defects that disqualify them from any of those grades. Poorly bled birds may be included in this grade, and birds that have numerous pinfeathers, which may be over the entire carcass. Flesh or skin bruises, abrasions, or discolorations are permitted, but not such as

to make any appreciable quantity of the carcass inedible. In actual grading, this description would be construed to mean not over one-fourth of the carcass. Dented breastbones, crooked breasts, hunchbacks, and other deformities are allowed to some degree. But if the

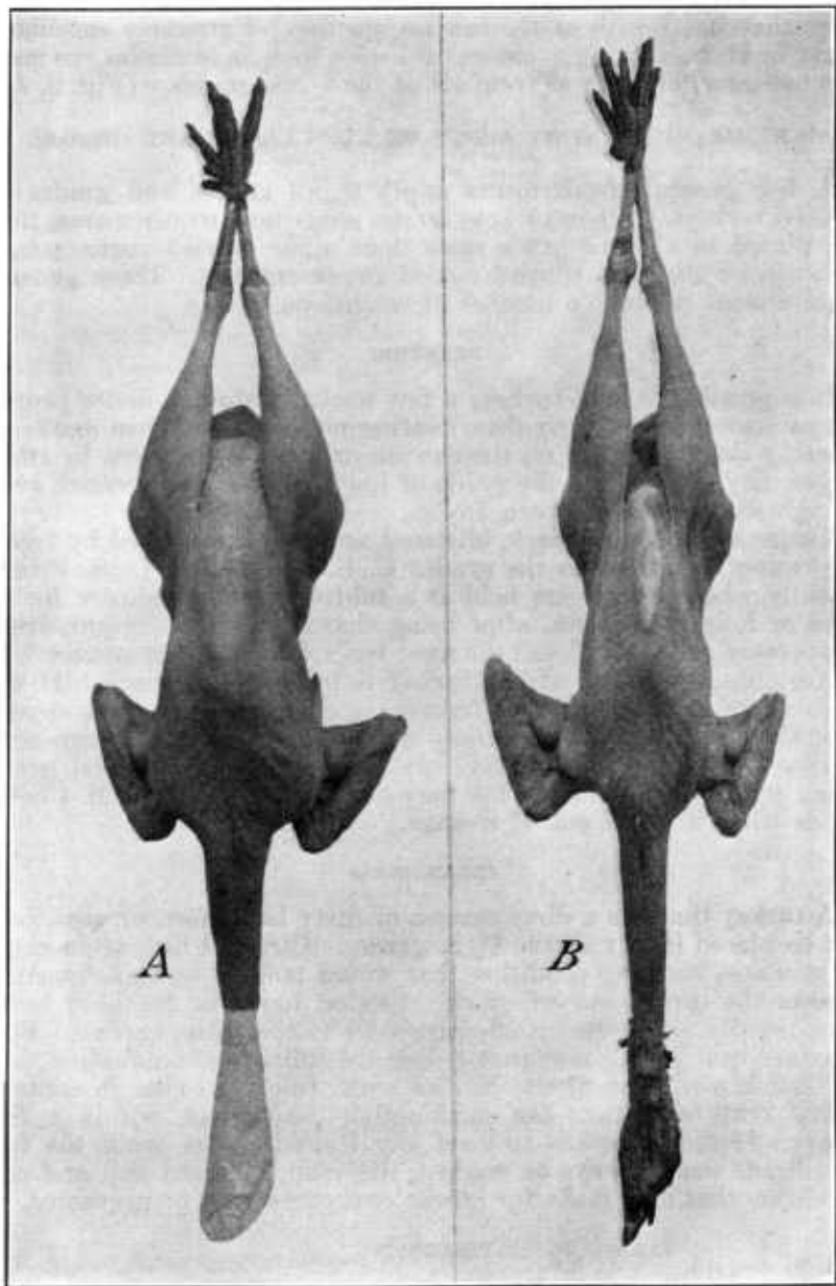


FIGURE 2.—Choice and Commercial grades of turkey. *A*, U. S. Choice, or U. S. Grade *B*, young hen turkey. The carcass is fairly well fleshed with a slight covering of fat over the sides and back. *B*, U. S. Commercial, or U. S. Grade *C*, young hen turkey. This turkey is poorly fleshed but is edible so far as can be judged by external appearance. Scarcely any fat shows through the skin covering of the carcass.

carcass has numerous defects or any severe deformity, the turkey must be at least fairly well-fleshed and of a higher grade otherwise than U. S. Commercial. Otherwise it is considered as below grade. Broken legs or wings, even if broken in the fleshy part of the bird, are permitted if they have not bruised the flesh so badly as to make more than one-fourth of the carcass inedible. Extremely emaciated birds, or birds showing evidence of disease such as to render the meat unwholesome, are barred from all of the U. S. grades. (Fig. 2, *B.*)

GENERAL RULES THAT APPLY TO ALL CLASSES AND GRADES

A few general requirements apply to all classes and grades of dressed turkeys. When turkeys do not meet these requirements, they are placed in a lower grade than their other characteristics would indicate, or they are thrown out of grade entirely. These general requirements relate to a number of conditions.

FREEZING

It is possible to hold turkeys a few weeks in storage under proper temperature without their deteriorating noticeably. When marks of freezing do not appear on the carcass or are not sufficient to affect the quality of the flesh, the grade of the carcass is not lowered, even though the carcass has been frozen.

Turkeys that show a dark, blistered, or dried skin caused by freezing cannot be placed in the grades U. S. Special and U. S. Prime. Usually when turkeys are held at a subfreezing temperature for 60 days or longer, the skin, after being thawed, loses its bright, fresh appearance or "bloom," and the meat has a darkened appearance. If this occurs, the grade of the turkey is lowered one grade. If the flesh shows marked effects of freezing, and if dry scaly spots appear over the entire carcass, the turkey is placed in the U. S. Commercial grade. For example a turkey may be of the U. S. Special grade when put into cold storage but may not be even of the U. S. Choice grade when it comes out of storage.

CLEANLINESS

A turkey that has a dirty carcass or dirty head, feet, or vent, cannot be placed in any of the U. S. grades. Dirt and filth are a cause of spoilage, and any condition that would tend to unwholesomeness throws the turkey out of grade. Clotted blood in the head turns sour rapidly and gives an offensive odor to the entire carcass. Feet that are caked with manure or dirt are full of contamination that will affect the meat of the carcass with which it comes in contact. Dirty vents may turn the surrounding meat green within a few hours. If the carcass is to meet any United States grade the feet and heads must always be washed, the vents squeezed out, and any condition that may make for unwholesomeness must be prevented.

PRECOOLING

Turkeys that have not been properly precooled, so that all animal heat is removed from the carcass before it is packed, are likely to deteriorate in quality and even become unfit for food. Graders must be equipped with thermometers for taking internal tempera-

tures and must make sure that the turkeys, when packed, do not have an internal temperature higher than 36° F. A lower temperature than this is desirable, and if practicable the temperature should be reduced to 34° before the turkey is packed.

In actual practice it may be necessary for the grader at times to grade turkeys before they have been sufficiently cooled, in order to avoid rehandling or the mixing of the producers' lots. When this is done, the grader must make sure the birds are properly precooled after they are graded. Unless the birds are sufficiently cooled beforehand, or will be cooled under supervision of the grader, it is not permissible to grade the birds in accordance with Government specifications.

FEED IN CROPS

An enormous loss is sustained by the turkey growers each year because of feed left in the crops. Feed in the crop not only spoils the appearance of the carcass but lowers its keeping quality. The feed ferments soon after the turkey is killed and gives off a sour odor which penetrates through the crop and causes the surrounding meat to turn sour. The skin over the crop often darkens and eventually turns dark green or black. Feed in the crop is not permitted in any of the United States grades. (Fig. 3.)

PICKING

Many turkeys are placed in a lower grade than they would be otherwise because of defects in picking. If turkeys are killed before they are mature it is very difficult to remove all the pinfeathers even though a great deal of time and care are given to removing them. The garters of feathers around the hock must always be removed, as well as all the tail, neck, and fan feathers. (Fig. 4.) Earlier specifications of United States standards permitted a single row of fan feathers on the wings but for several reasons it is now required that they be removed. (The feathers are usually full of dirt and filth that induce contamination and spoilage. Then if feathers are permitted in the pack, uniformity would not be possible unless they were of the same color. Added to this, the butcher is likely to chop off the wing tip, instead of pulling out the feathers, and this makes it difficult to keep the turkey in place in the roasting pan or on the serving platter.)

WHOLESAFENESS

It is emphasized again that dressed turkeys, when packed, should be free from any condition which may render them unwholesome as food. The condition and wholesomeness of the carcass are determined largely by external appearances. Decomposition is first manifest in those parts of the carcass in which the viscera lies close to the surface of the skin. It is evidenced around the vent, between the keel and pelvic bones, and along the surface of the ribs. The meat first turns dark and then green. A condition of this kind is caused by decomposition from within and is usually the result of improper precooling or failure to maintain a sufficiently low temperature.

The green appearance of the skin in off-condition turkeys is caused by intestinal putrefaction and the consequent production of hydrogen

sulphite, which penetrates the thin body wall and acts upon the blood in the capillaries of the skin. Any evidence of this condition eliminates a carcass from any United States grade.

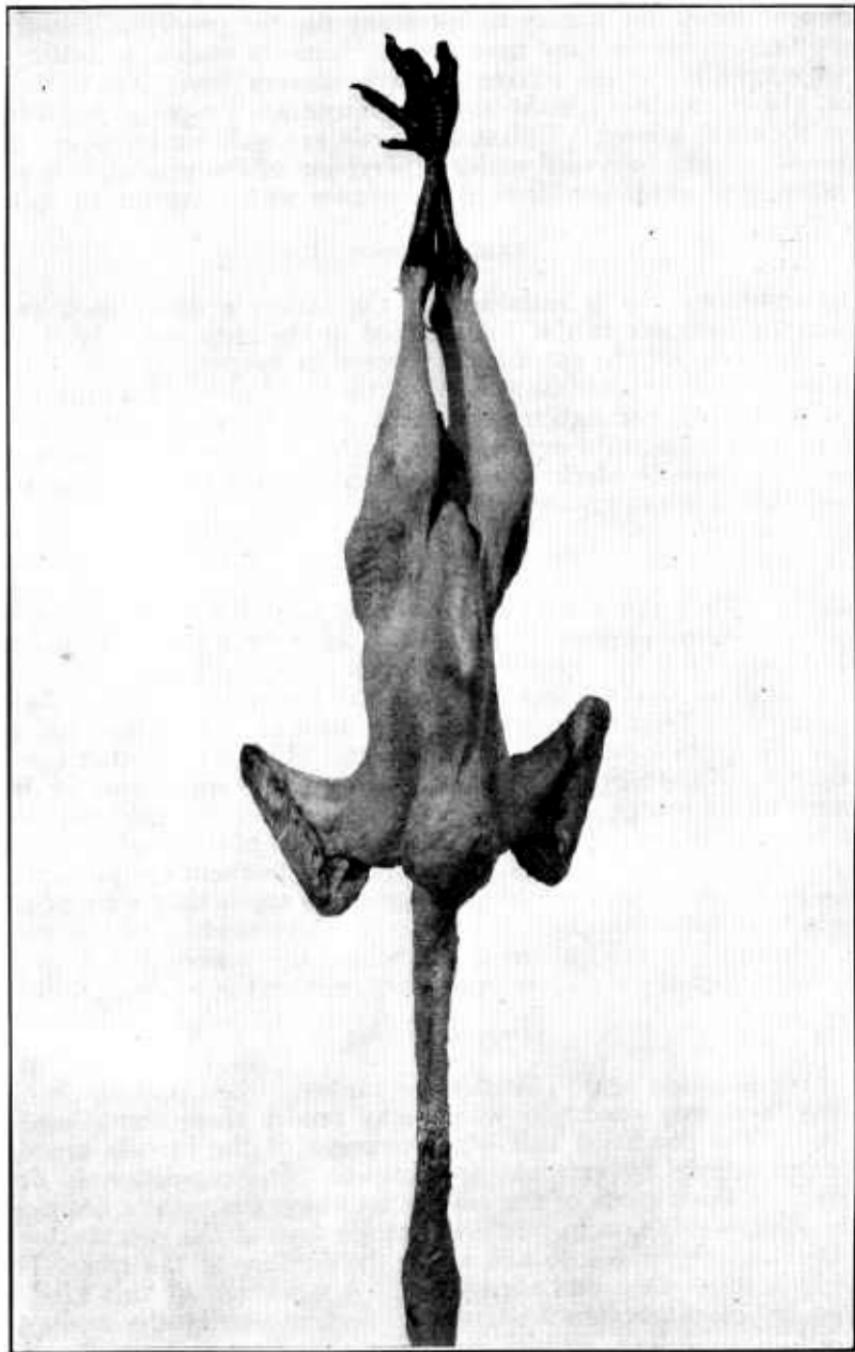


FIGURE 3.—A turkey with a full crop. Regardless of other conditions the grader is not permitted to place this turkey in any of the United States grades unless the crop is properly removed and the opening in the skin is sewed up.

Evidence of such diseased conditions as accompany tuberculosis or blackhead or tumorous growth is an indication of unwholesomeness. Turkeys so affected are barred from the United States grades.

EMACIATION

An extremely thin or emaciated turkey will not be placed in any United States grade, for emaciation is an indication of a diseased

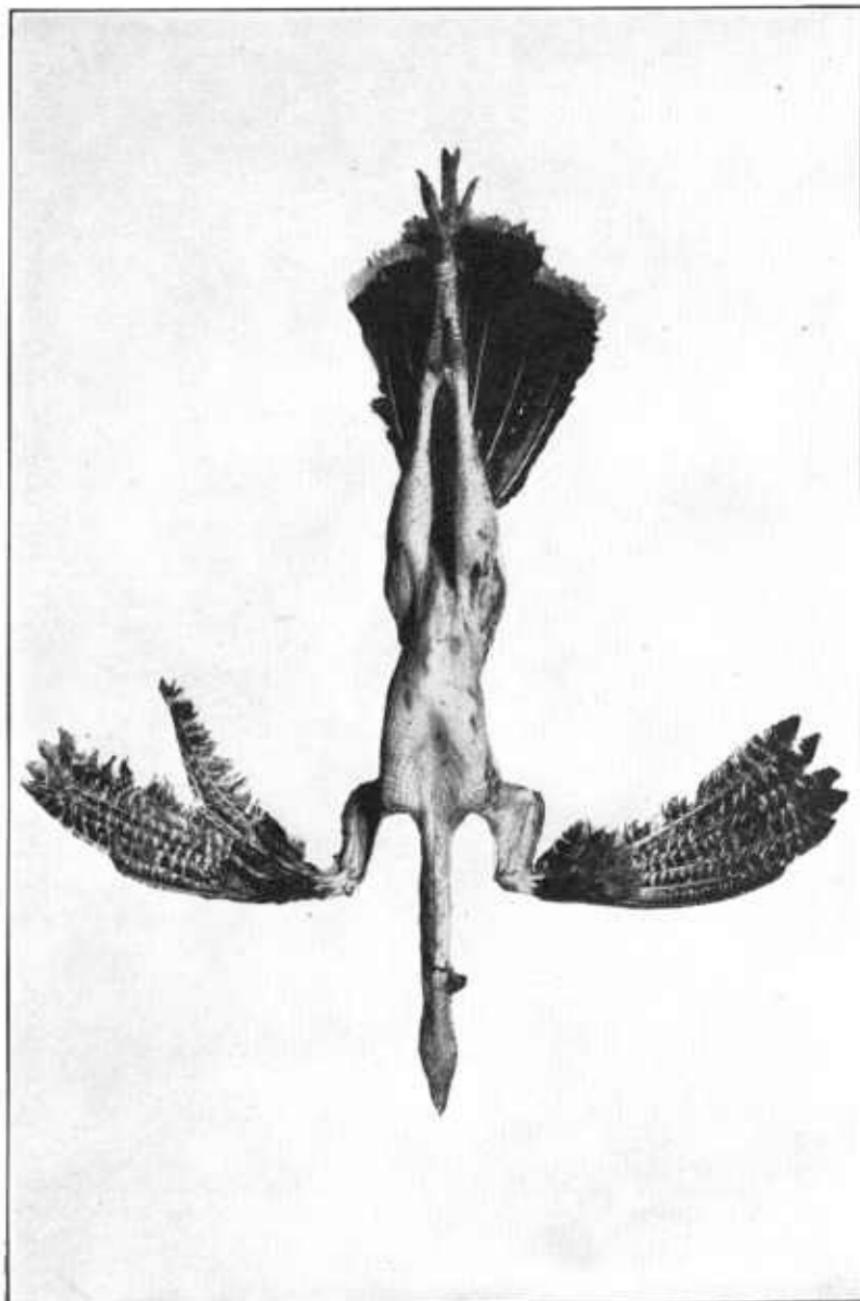


FIGURE 4.—An improperly picked turkey. For sanitary reasons all feathers must be removed.

condition, and it is usually impossible to ascertain definitely whether or not a turkey is diseased unless it is eviscerated. (Fig. 5.)

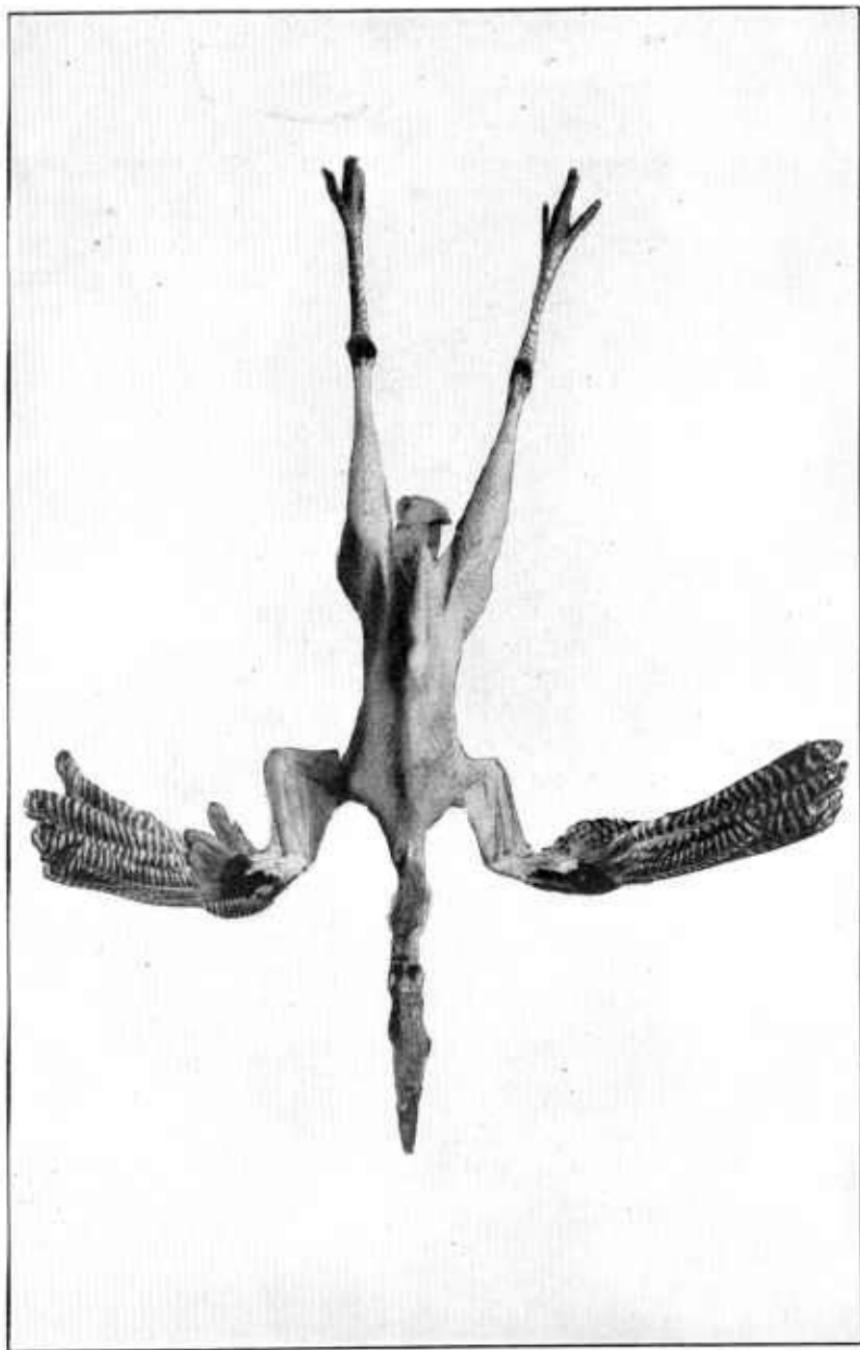


FIGURE 5.—An emaciated carcass. Turkeys as poorly fleshed as this are not placed in any United States grade.

GENERAL RULES THAT APPLY TO PACKING**PACKAGES**

The containers in which turkeys are packed must be clean, odorless, and of sufficient strength to carry the birds in good condition. A soiled package may mean a soiled turkey later, and a broken package may permit the turkeys in it to be damaged. Objectionable package odors may be caused by dirty or moldy packages or by odors that are characteristic of pine or some other boxing material.

Boxes used should be made of the best quality of lumber, should be free from knots, evenly and accurately cut, and preferably surfaced on both sides. Cement-coated sixpenny nails should be used in the sides and bottoms if the boxes are to be nailed, and fivepenny wire nails, not coated, should be used when nailing the cover. Boxes of smaller size are preferred to the larger sizes; if the larger ones are used, they should be wired around both ends.

During recent years a new type of wire-bound box has gradually been replacing the nailed box, as it is lighter in weight. Either type of box may be used in connection with the United States standards if the box is sufficiently strong to carry well.

The use of barrels as containers in which to pack turkeys is generally discouraged, but at the present time they may be used in connection with these standards.

BOX LINING

The package should always be lined with a parchment or waxed-paper liner of good quality. These liners, if of good quality, not only keep the turkeys clean but protect them from skin drying and from abrasions caused by rubbing against the sides of the box.

Before stamping the United States grade name on any box, the grader must see that the box has a suitable liner.

STAMPING

An official stamp showing the United States grade of the turkeys contained in the package may be used only by an authorized grader or by some one under his direct supervision. The grade designation should be plainly legible, should be at least three-quarters of an inch in height, and the stamp should be approved by the Bureau of Agricultural Economics before it is used. The grade must be stamped on the end of the box, the stamp being neatly applied in a conspicuous place. In addition to the grade, the class must always be marked on the package immediately following the grade, in letters as conspicuous as those used in marking the grade. The number of turkeys in the container and the net weight of the turkeys must also be shown.

UNIFORMITY

Turkeys must be packed with a high degree of uniformity in size and color. Good appearance in a box of turkeys is almost completely lacking if there is lack of uniformity in the pack. The range of weights of the individual birds in a container, except in the case of old toms, cannot vary more than 2 pounds if proper sizing is main-

tained and if a good solid pack is to be obtained. No matter how good a job the packer may do, the turkeys will not present an even appearance if uniformity in size is not maintained. Light-colored, milk-fed turkeys should be packed separately from the yellow-colored or grain-fed birds. Most markets prefer the light-colored birds, a few prefer yellow-skinned birds, but no market prefers mixed colors in a package.

DEFECTS AND DEFORMITIES TO BE CONSIDERED IN GRADING

Defects are usually caused by poor workmanship in dressing, whereas deformities are usually due to inheritance or to injury or to conditions existing during the growth of the turkey. Any person who grades turkeys should have clearly in mind what is meant by certain terms that are used in describing the standards for the different classes and grades.

BRUISES

Large numbers of bruised turkeys are found on the market each year, bringing great losses to producers and packers. Improper handling of the live turkeys on the farms and at the packing plants is the chief cause. With proper care this loss could be avoided. A bruise on the breast is considered a much greater defect than a bruise on any other part of the carcass. The extent to which the grade of the carcass is lowered depends on the extent and location of the bruise. (Fig. 6.)

TORN SKIN

How serious the effect of a torn skin is depends on the location. When on the back or wings, the tear is not considered so serious as if it is on the breast, and larger tears are allowed on those parts of the carcass. Most tears are due to poor sticking, which makes the feathers difficult to pull. Pulling against the slant of the feathers also causes many tears, especially on the younger birds.

The skin of the bird is nature's protection for the meat underneath. If it is injured or torn, spoilage begins rapidly where the meat is exposed to the air. For that reason no open tears in the skin are permitted in U. S. Special and U. S. Prime grades. (Fig. 7.)

SKIN ABRASIONS

Abrasions are marks on the skin that cause it to be rough and discolored. The damage is usually to the outer layer of skin and does not penetrate to the flesh. Abrasions are usually caused when the turkey is being dressed by rubbing the skin to get the feathers out instead of picking them out. They may also be caused by rough handling after the birds are killed. Abrasions are most common on the leg, near the knee, and on the wings. When the outer layer of skin, or cuticle, is removed by rubbing or "slapping" in dressing, the inner layer turns dark as it dries out from exposure to the air. Abrasions are one of the most objectionable faults brought about by unskillful dressing.

POOR BLEEDING

Good bleeding is highly important. A bird that has been poorly bled soon develops a characteristic "strong" taste and an offensive

odor. Its keeping quality is not so good as it would be if the bird had been well bled. When a turkey has not been completely bled, small red pin spots show along the tip of the wings and over the hips. If the bleeding was not complete these blood marks show wherever the larger feathers have been pulled. The marks are most

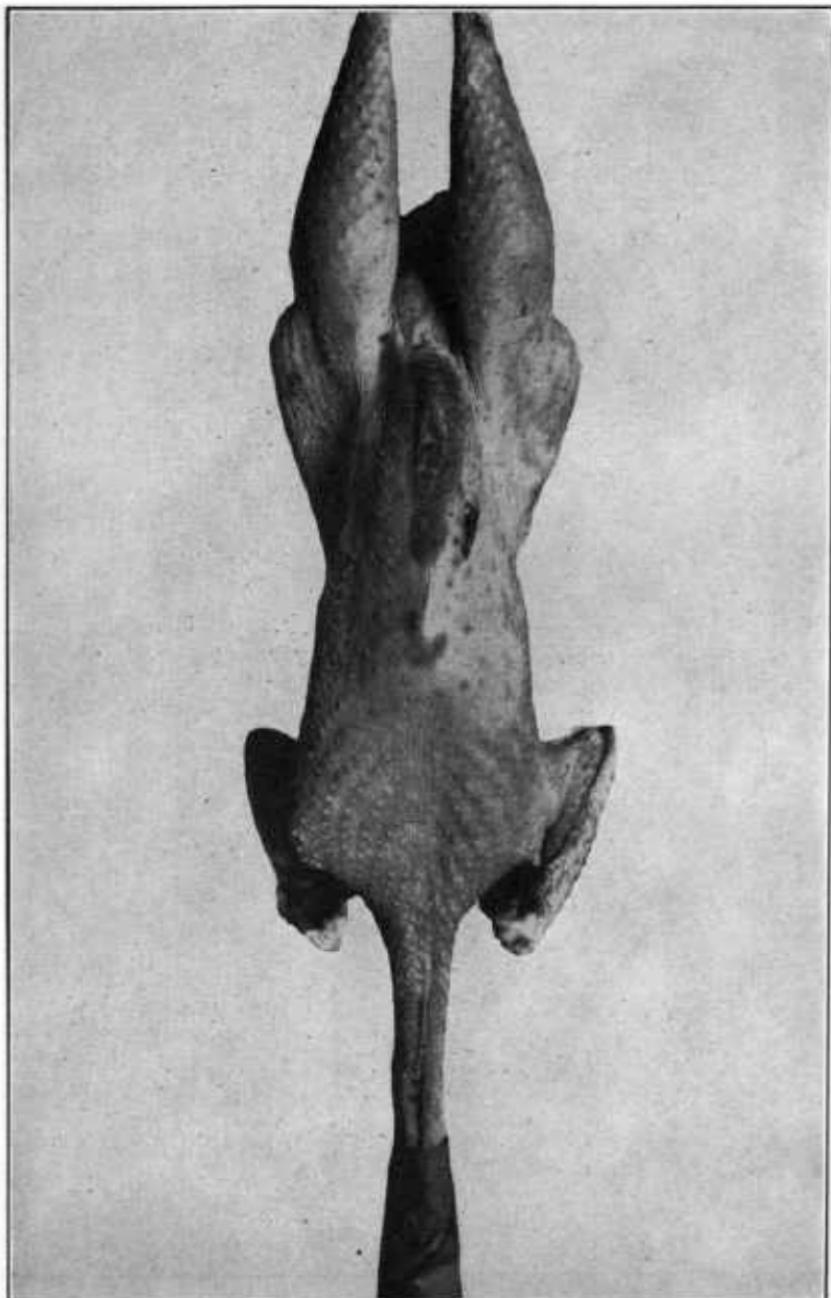


FIGURE 6.—Turkey with bruised breast. This turkey was placed in U. S. Commercial grade, or U. S. Grade C. Except for the bruise, it would have graded U. S. Prime, or U. S. Grade A.

noticeable on the tail, along the thigh, and on the streak of fat that extends over either side of the breast. If the bleeding was done very poorly the neck is blue and discolored from blood clots that form underneath the skin.



FIGURE 7.—This U. S. Prime, or U. S. Grade A, turkey is reduced to U. S. Commercial, or U. S. Grade C, on account of torn skin. Had the tear been properly sewed up or had it occurred on the back or wing, the turkey would have graded U. S. Choice, or U. S. Grade B.

DISCOLORATION

Skin discoloration or reddening is often caused by the carcasses touching each other on the cooling racks. It may also result from a sweat after they are packed if they are not kept sufficiently cool. If the skin is not thoroughly dry when the turkeys are packed, discoloration is likely to occur wherever one bird rests against or touches another. Usually a slightly bloody liquid will form under the skin at the juncture of contact causing it to appear red. Discoloration of the skin over the crop often occurs if the turkey swallows blood while bleeding after it has been stuck in the mouth.

CROOKED BREASTS

A very crooked breast is a common cause for disqualifying birds for the higher grades. Crooked breastbones, according to most authorities, are sometimes due to improper feeding—usually to a lack of minerals in the feed. Some inherited tendencies also cause weak bony structures in offspring from defective breeding stock. Crooked breasts are not allowed in the U. S. Special or U. S. Prime grades. The extent or degree to which the breast is crooked is one of the principal factors in determining the grade. If the breastbone is slightly curved but not crooked and if the curvature does not interfere with the slicing of the meat, the bird may be graded U. S. Prime. (Fig. 8.)

DENTED BREASTBONES

A dent is a notch in the breastbone. It is caused by the turkey resting its breast on the roost. It is not considered so serious a defect as a crooked breast because it does not interfere with the slicing of the breast meat as much as does a crooked breast. (Fig. 9.)

PEAKED BREASTS

A peaked breastbone results in a deformed breast and should be considered equivalent to a slightly crooked breast. It does not affect the eating qualities of the meat, but lowers the commercial value of the bird considerably from the standpoint of appearance and puts the bird in a grade below U. S. Prime. (Fig. 10.)

CROOKED BACKS

Any deformities in the bones of the back which throw the body out of line is known as a crooked back. Usually such a deformity is not noticeable when one is looking at the breast of the turkey, and it is far less serious than a hunchback as it does not throw the meat of the breast out of line. A turkey with a crooked back cannot be placed in a grade above U. S. Choice.

HUNCHBACKS

A hunchback is considered as a major deformity in a turkey. If the bird is fairly well fleshed it may be placed in the lowest grade, but if not, the bird will be below any grade. Such turkeys, even when well-fleshed, bring low prices. (Fig. 11.)

CROOKED FEET AND TOES

Crooked, misshapen feet and toes are common deformities among turkeys. If they are only slightly misshapen no attention need be paid to them in grading, but if they are definitely deformed the turkey may not be put in the U. S. Special grade. If the feet or toes



FIGURE 8.—Turkey with a crooked breastbone. A deformity as marked as this places the carcass in the lowest grade.

are badly misshapen the turkey is placed in the U. S. Prime grade only if it is otherwise of U. S. Special quality.

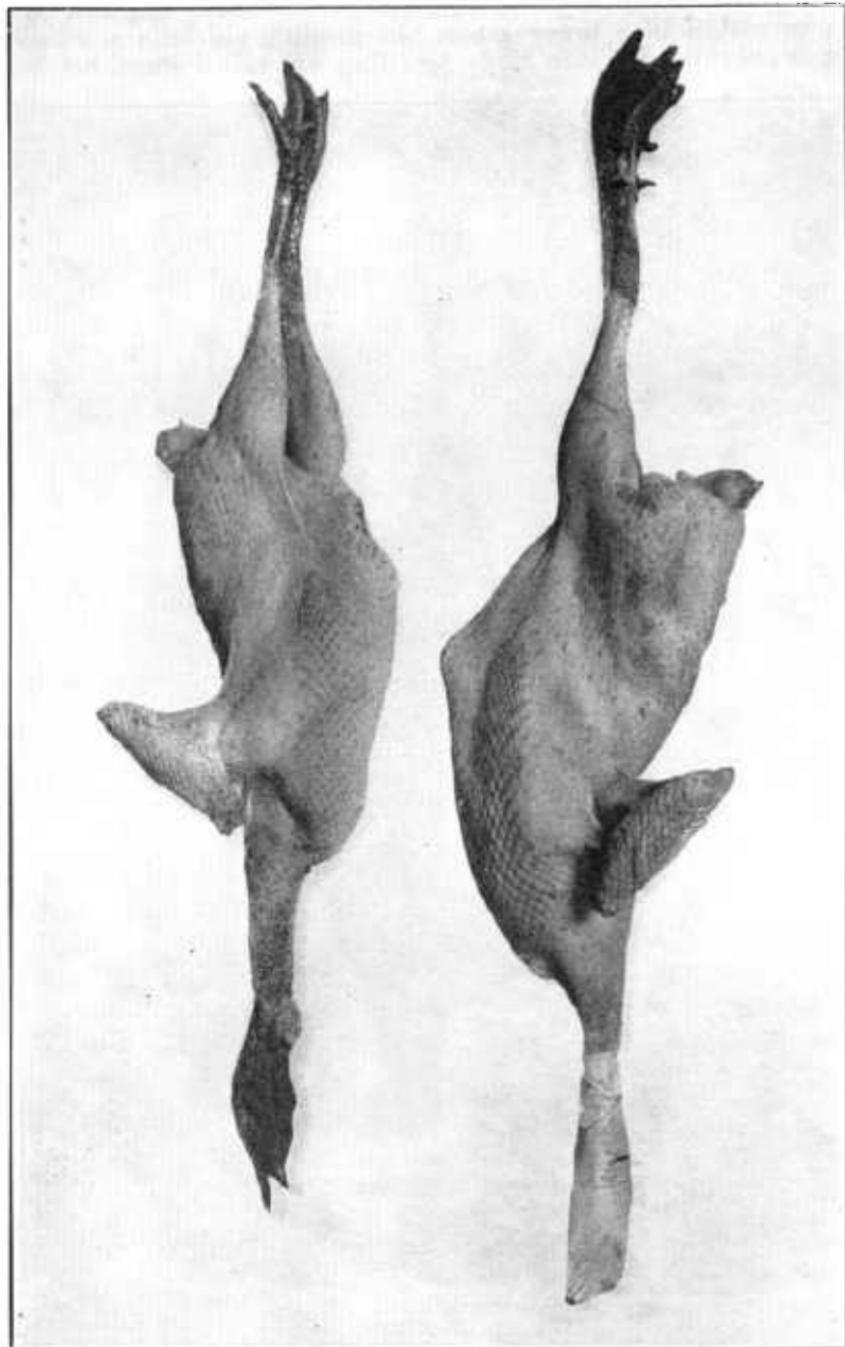


FIGURE 9.—Turkeys with dented breastbones. The dent in the breast of the turkey on the right measured one-eighth of an inch in depth; the one on the left, one-fourth of an inch in depth.

STAGGINESS

Producers often make the mistake of holding their young toms until the flesh is no longer fine-grained and tender. The bird must then be placed in a lower grade. In grading chickens a separate class is provided for such birds, and they are called stags, but such



FIGURE 10.—Turkey with a peaked breastbone. If full-fleshed and properly dressed, this turkey would grade U. S. Choice, or U. S. Grade B; if not full-fleshed, it would grade U. S. Commercial, or U. S. Grade C.

is not the case with turkeys. Instead, they are placed in a lower grade. (Fig. 12.)

SCALY LEG

Scaly leg in turkeys is due to infestation of mites on the legs. This trouble should be cured by the producer before his turkeys are ready for market. Dipping the legs of the affected bird once in

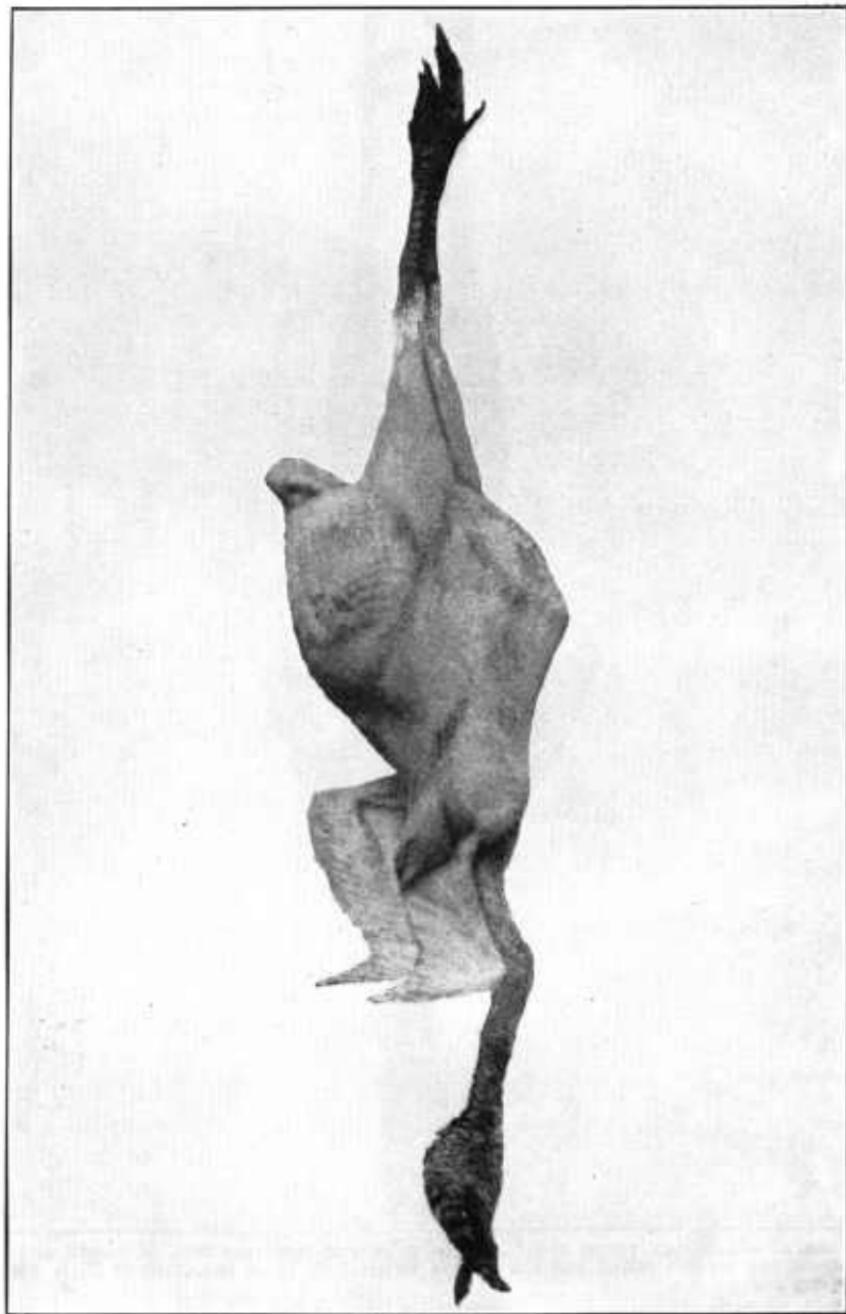


FIGURE 11.—A well-fleshed turkey with a hunched back. As this turkey is well-fleshed it will be placed in U. S. Commercial grade, or U. S. Grade C.

crude petroleum or in a mixture of 1 part kerosene and 2 parts raw linseed oil will usually cure the trouble. If the condition has reached an advanced stage at the time the bird is graded, the carcass should be reduced at least one grade. (Fig. 18.)

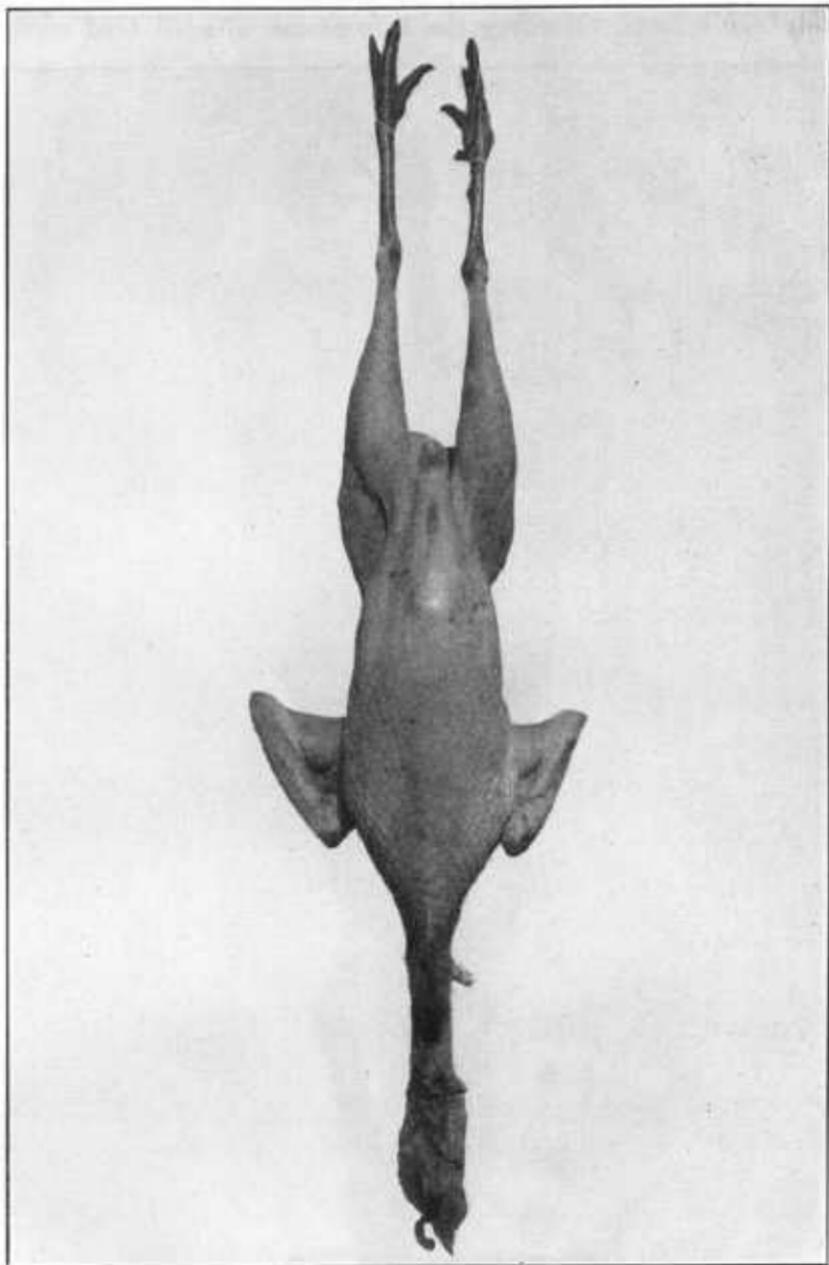


FIGURE 12.—A staggy young tom. As the spurs and head are well developed and the breast has become puffed and flabby, this turkey belongs in the grade of U. S. Choice young tom.

INTERNAL FEATHER GROWTH

Internal feather growth is more prevalent in old hen turkeys than in any other class. Affected turkeys will have a rough, scaly skin. The ends of the feathers will protrude slightly through the cuticle, the remaining part of the feathers, sometimes 3 or 4 inches, being underneath the skin. The producer can do nothing to remedy this



FIGURE 13.—A turkey affected with scaly leg. The skin above the knee is dark and wrinkled. The turkey is barred from the U. S. Special, or U. S. Grade AA.

condition, and it is almost impossible to detect it until after the turkey has been killed and picked. In severe cases the affected turkey should be placed in the lowest grade. (Fig. 14.)

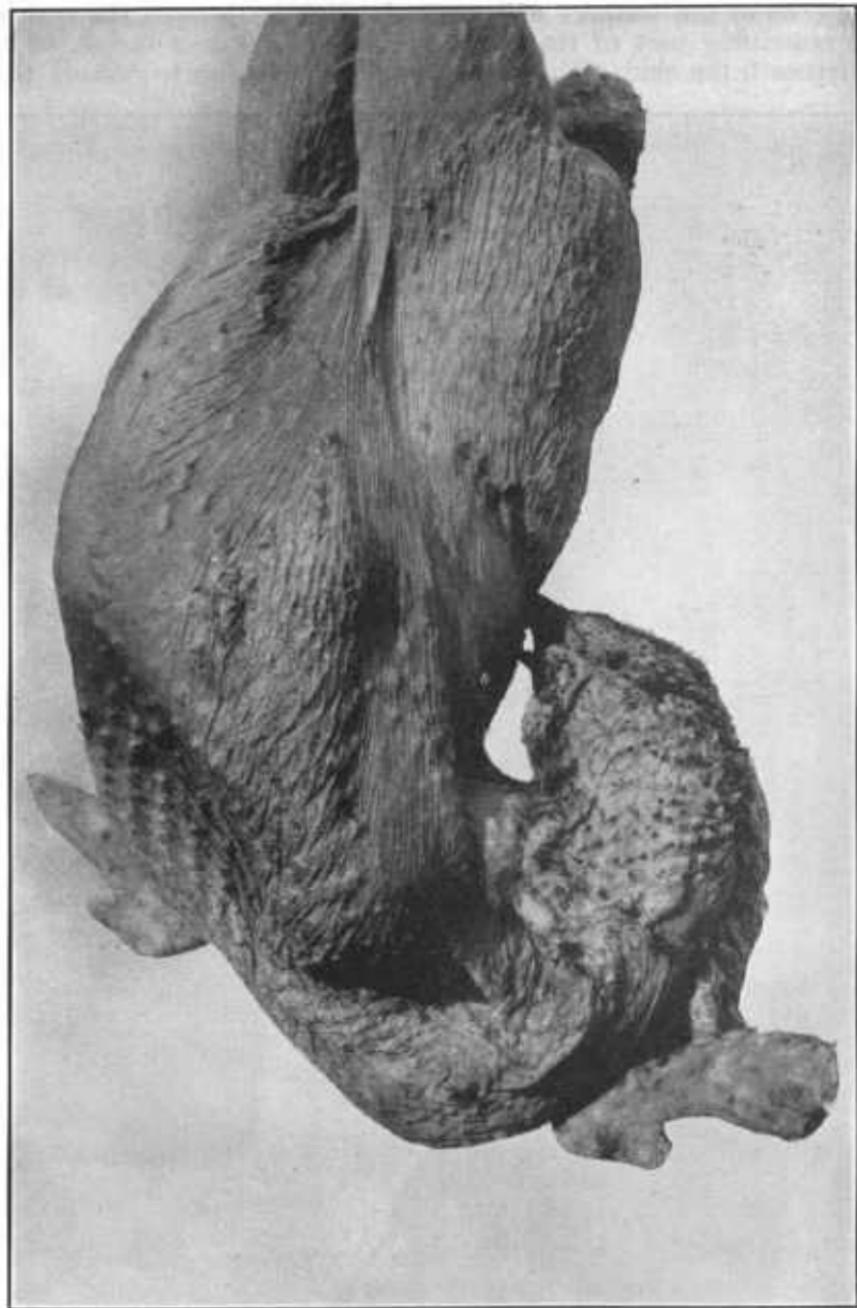


FIGURE 14.—Turkey showing evidence of internal feather growth. This turkey has been reduced in grade from a U. S. Prime, or U. S. Grade A Old Hen to U. S. Commercial, or U. S. Grade C Old Hen.

SWOLLEN JOINTS

Swollen joints constitute a minor deformity. Turkeys so affected are barred from the U. S. Special grade. If the joints are badly swollen the turkey should be placed below the U. S. Prime grade. (Fig. 15.)

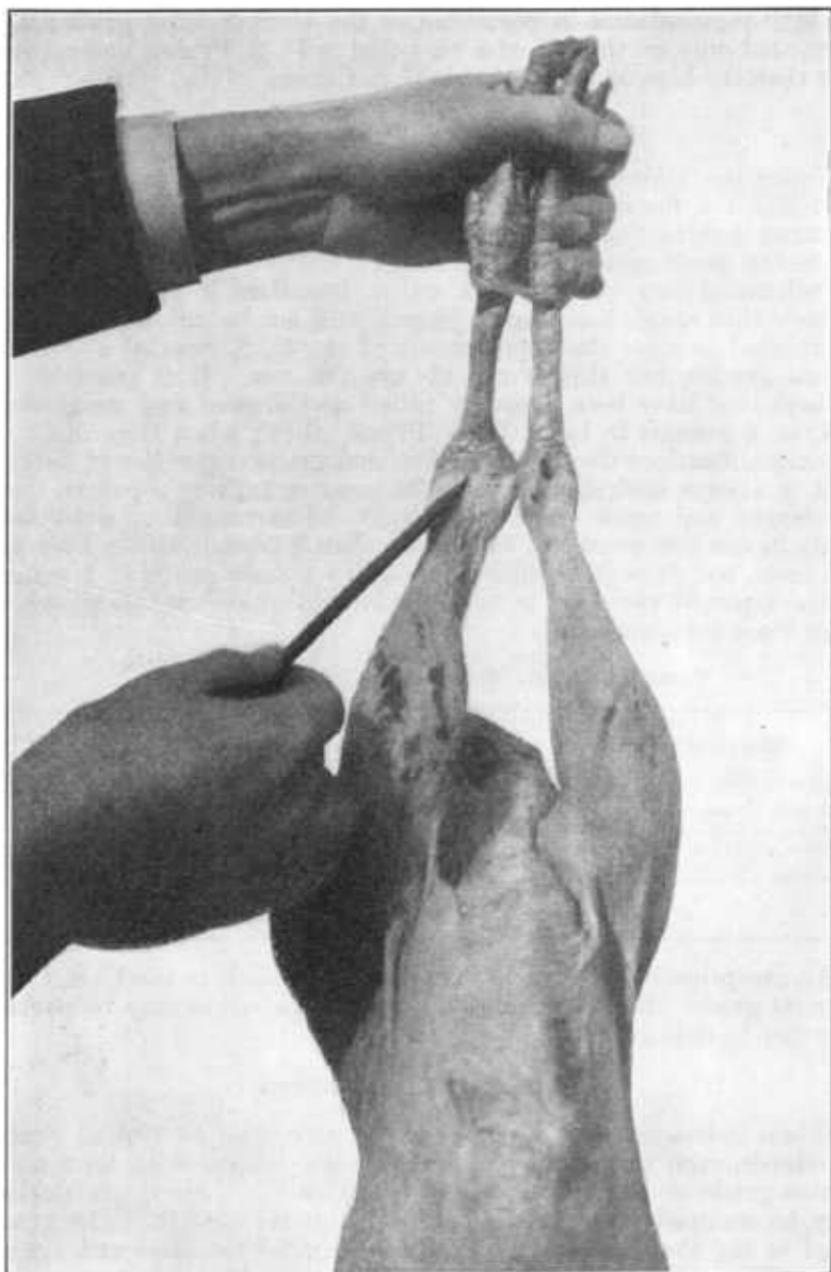


FIGURE 15.—Turkey with swollen joints. When the leg is so affected the turkey must be reduced one grade.

PIGMENTED SKIN

Pigmented skin means that the skin has turned a bluish-green color because of a feather pigment growing under the skin. It is caused by injury to feather follicles and is prevalent in flocks in which tail picking has occurred. It is also commonly found on the backs of breeder hens that have been injured by the treading of the toms. No skin pigmentation is permitted in the U. S. Special grade; it is permitted only on the tail of a bird that is U. S. Prime; and no further than the hips on a bird that is U. S. Choice. (Fig. 16.)

WEIGHT SPECIFICATIONS

Under the United States standards the weight of the individual bird is not a factor in determining its grade. If a turkey has the required fleshing characteristics and other qualities, it may be placed in the top grade regardless of its weight.

Ordinarily hen turkeys that weigh less than 9 pounds or tom turkeys that weigh less than 12 pounds will not be sufficiently fleshed or finished to meet the requirements of the U. S. Special and U. S. Prime grades, but this is not always the case. It is possible for turkeys that have been properly raised and dressed and weigh only 6, 7, or 8 pounds to be of U. S. Prime grade; when they meet all other qualifications they are placed in that grade regardless of weight.

It is always desirable to pack the smaller turkeys separate from the larger and mark them accordingly. The weight of individual birds in one box must not vary more than 2 pounds unless they are old toms, and it is preferable to limit the weight range to 1 pound. If the 2-pound variation is used, the weight classifications shown in table 1 are recommended.

TABLE 1.—Weight classifications for dressed turkeys

Old or young hens (pounds)	Young toms (pounds)	Old toms (pounds)
Under 8	Under 12	Under 18.
8 to 10	12 to 14	18 to 24.
10 to 12	14 to 16	24 to 30.
12 to 14	16 to 18	30 and over.
14 and over	18 to 20	
	20 to 22	
	22 and over	

An exception to this weight classification is made in the U. S. Commercial grade. Birds of a 3-pound weight variation may be packed together in that grade.

GRADE LABEL AND STAMP

When individual turkeys are graded according to United States standards, each turkey may be individually labeled with its United States grade or the box or barrel in which the turkeys are packed may be stamped with the United States grade (p. 32). The grade label or tag that is used on the bird also gives the class and age of the turkey. (Fig. 17.)

The label is fastened to the carcass by means of an approved metal seal and cannot be removed without destroying the seal. Different-

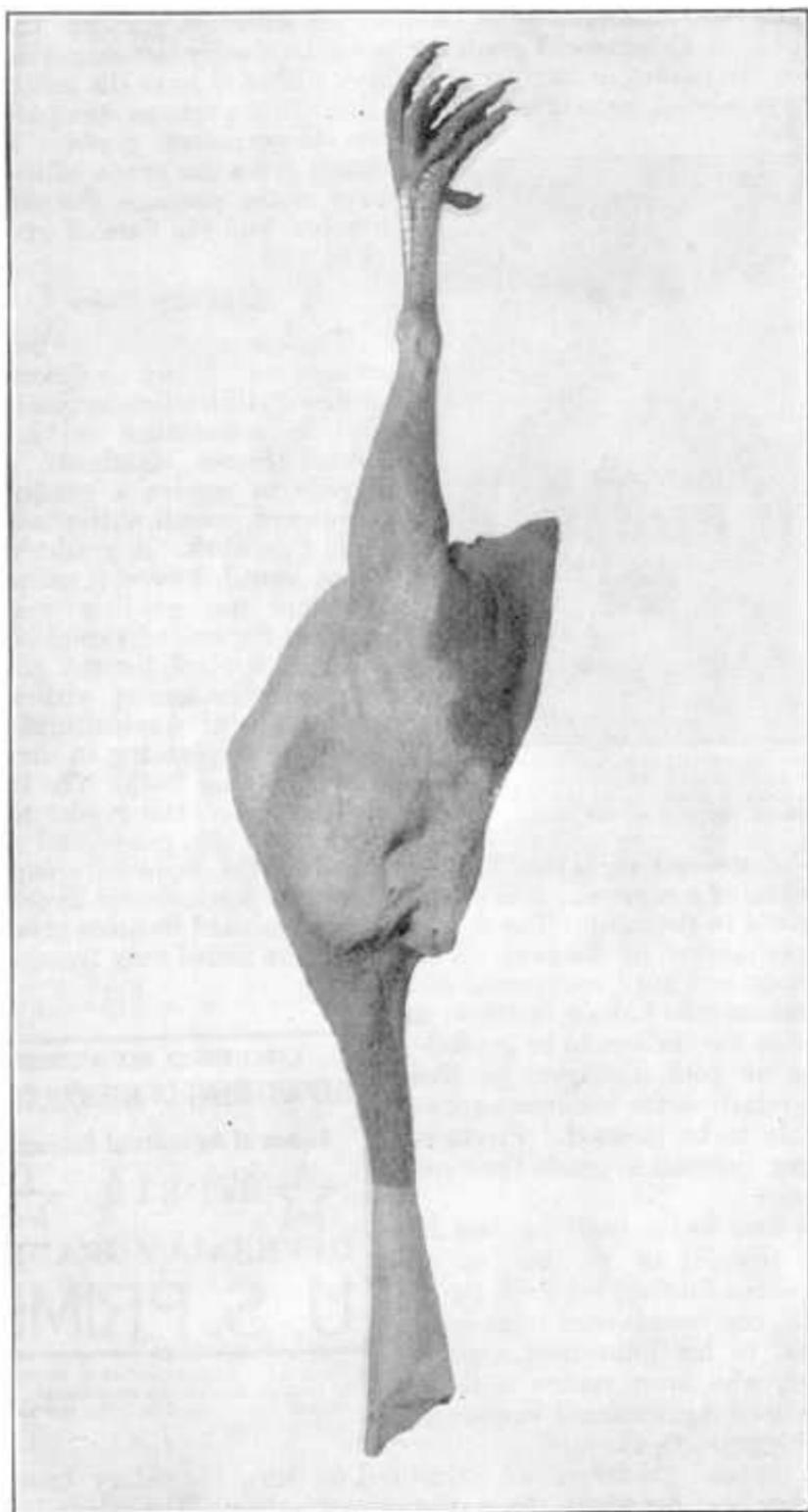


FIGURE 16.—Turkey with pigmented skin. The discoloration extends beyond the tail and half way to the hips. This turkey would be graded U. S. Choice, or U. S. Grade B.

colored labels are now being used for the different grades. Turkeys of the U. S. Commercial grade are not individually labeled. Whether or not the packer or shipper of turkeys wishes to have the individual turkeys labeled, he may have the outside of the package stamped with

the Government grade. This stamp gives the grade of the turkeys in the package, the grader's number, and the date of grading. (Fig. 18.)



FIGURE 17.—Seal and tag used to label the grade on an individual turkey. They are usually attached to the skin of the neck or the web of the wing.

tion of dressed turkeys. The signature of the immediate superior officer or of a representative of the Bureau of Agricultural Economics is affixed to the card. The date on which the card becomes invalid is plainly marked on the card. These cards are issued only from season to season and must be renewed each year.

Persons who have a financial interest in the turkeys to be graded—plant or pool managers or their close relatives, for instance—are not eligible to be licensed. Producers are not licensed to grade their own turkeys.

As soon as the expiring date has been reached or as soon as the grader has finished his work for the season, the license card must be returned to his immediate superior officer, who must return it to the Bureau of Agricultural Economics, Washington, D. C.

A licensed grader is not permitted to draw his salary from the plant or pool for whom the grading work is done. The salary is paid by the applicant for the service to the State cooperating agency, which in turn remits the salary to the grader.

LICENSE CARD

When an applicant has been examined and found to possess the proper qualifications to grade turkeys in accordance with the United States standards, he is eligible to receive a grader's license card, which authorizes him to do this work. A grader's card is not issued, however, unless the applicant has grading work to perform for an individual or firm who has applied for the grading service to the agency with which the Bureau of Agricultural Economics is cooperating in carrying on the grading work. The license card empowers the grader to certify to the class, grade, and condi-

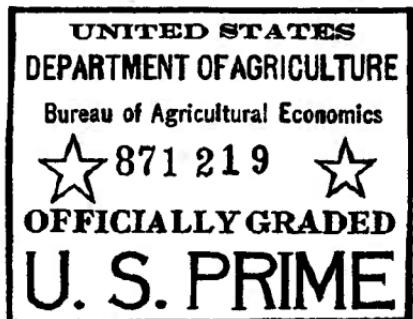


FIGURE 18.—Impression of a Government stamp used in marking packages. These stamps are issued only to licensed turkey graders.

GRADING CERTIFICATE

A grading certificate is issued for each lot or car of turkeys graded. (Fig. 19.) The original and one copy of the certificate are delivered to the shipper or to the receiver of the turkeys, whichever applied

F.P.I. 71

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

No. 1370-H

POULTRY GRADING CERTIFICATE

This certificate is receivable in all Courts of the United States as *prima facie* evidence of the truth of the statements therein contained. This certificate does not excuse failure to comply with any of the regulatory laws enforced by the United States Department of Agriculture.

Shipping point Grand Junction, Colo. Date of loading November 12, 1933.
 To Colorado Turkey Producers, Inc. Address Grand Junction, Colo.
 *Shipper or seller Colorado Turkey Producers, Inc. Address Grand Junction, Colo.
 *Receiver or buyer Northwestern Turkey Growers Assn Address Salt Lake City, Utah.

I certify that in compliance with the regulations of the Secretary of Agriculture governing the grading of poultry, pursuant to the act making appropriations for the United States Department of Agriculture, I, graded, on the date stated below, the poultry described below, and that the kind, class, grade and/or condition of said poultry, when graded were as stated below:

Car initials and number APT 19582 Kind of car Refrigerator.
 Condition of car Good, new. Drain Open Floor racks IN PLACE.
 Amount of ice 2/3 CAPACITY Salt 12 % Opened 9 A.M. Temperature 28 degrees
(Time)
 Closed 1:30 P.M. Temperature 42 degrees.
 Description of poultry: Finish M. F. Color Bright Bloom Good How dressed D. P.
 Total packages 178 Total pounds 22,234 Quantity examined All turkeys Kind of package Boxes.
 Average temperature holding room 10° F. Date of grading November 10, 1933.
 Internal temperature of poultry: Highest 36 Lowest 33.

GRADES, CLASS, AND WEIGHTS

GRADE	CLASS		CLASS H.		CLASS T.		CLASS T.		CLASS		CLASS		TOTAL	
	Pkgs.	Weight*	Pkgs.	Weight*	Pkgs.	Weight*	Pkgs.	Weight*	Pkgs.	Weight*	Pkgs.	Weight*	Pkgs.	Weight*
<u>U.S. Prime</u>	<u>2</u>	<u>252</u>	<u>22</u>	<u>2574</u>	<u>4</u>	<u>520</u>							<u>28</u>	<u>3346</u>
<u>U.S. Choice</u>	<u>2</u>	<u>252</u>	<u>30</u>	<u>3510</u>	<u>13</u>	<u>1815</u>	<u>80</u>	<u>10100</u>					<u>125</u>	<u>15677</u>
<u>U.S. Commercial</u>	<u>1</u>	<u>127</u>	<u>2</u>	<u>230</u>	<u>1</u>	<u>137</u>	<u>20</u>	<u>2600</u>					<u>24</u>	<u>3094</u>
<u>Below Grade</u>	<u>14</u>	<u>turkeys</u>	<u>all classes</u>		<u>Total weight</u>		<u>1</u>	<u>117</u>					<u>1</u>	<u>117</u>
<u>TOTAL</u>	<u>6</u>	<u>681</u>	<u>54</u>	<u>6314</u>	<u>14</u>	<u>1952</u>	<u>10413220</u>	<u>1</u>	<u>117</u>				<u>178</u>	<u>22234</u>

* As stated by applicant.

Lot numbers and identifying marks: Each box marked Lot No. 7. Every bird except U.S. Commercial grade and those below grade tagged with government tag and seal. Boxes stenciled with U.S. grade.

Remarks: Turkeys precooled outdoors at temperature near freezing. Animal heat entirely removed before packing.



Packages (were) stamped with grade, grader's license number, and date of grading for identification.

Fee \$20.00

John Doe _____ Grader _____

Expenses 5.00

Address Grand Junction, Colo.

Total 25.00

PLEASE REFER TO THIS CERTIFICATE BY NUMBER AND SHIPPING POINT

FIGURE 19.—A grading certificate made out in full.

for the grading, one copy is mailed to the Bureau of Agricultural Economics, United States Department of Agriculture, Washington, D. C., and one copy is sent to the supervisor. The grader may retain a copy if he wishes. The certificate is typewritten whenever practicable. It contains full information regarding the number of boxes of each class and grade in the lot, and net weight of each class and

grade, with other valuable information. It also states the condition of the carcasses. Each certificate is signed by the grader, who certifies to the truth of the statements contained therein.

The certificates are serially numbered, and a record of each is kept. When a certificate is lost or destroyed, the grader must immediately notify his superior officer. If the certificate should be torn, soiled, or incorrectly made out, it must be marked "void" and sent to the supervising grader. At the close of the grading season all unused grading certificates must be mailed immediately to the State supervisor, who in turn promptly mails them to the Bureau of Agricultural Economics.

REGRADING AT TERMINAL MARKETS

The terminal-market buyer or receiver of a lot or car of turkeys which was graded at shipping point according to the United States standards, may obtain a regrading of the lot at any terminal market at which the United States grading service on turkeys is available. If regrading is done at the terminal market, the regrading certificate supersedes the certificate issued at the shipping point. Therefore if the grading at the shipping point is not done correctly, it will be recognized and the shipper will be in trouble.

OUTSTANDING CONSIDERATIONS IN GRADING

The grader should always bear in mind the three factors of major importance that determines the grade of a dressed turkey: (1) The quantity of flesh on the carcass in comparison with the quantity of the inedible portion, (2) the quality of the flesh, and (3) the sales appeal of the bird as typified by its appearance. A turkey must rate high in all three of these factors in order to meet the requirements of the two higher grades.

It is not enough for a turkey merely to be full-fleshed and soft-and tender-meated; it must also show good workmanship in dressing so that the sales value is not lowered by blemishes on the carcass, torn or abraded skin, pinfeathers, or other defects that spoil the appearance even though they do not lower the eating quality of the meat.

It is impossible for graders to render a satisfactory grading service according to the United States standards unless they have a thorough knowledge of the United States standards for classes and grades of dressed turkeys. This is obtained by a careful study of the grade descriptions and the grading chart. A good grader soon comes to know almost at once the grade in which a carcass will be placed after an examination of the characteristics that determine its grade. This may appear difficult at first, but if the work is undertaken in a systematic way, the knowledge comes readily. To insure uniformity in grading, some graders select, early in the day, a number of turkeys that are fully typical of each grade and hang them on a rack where they can be conveniently referred to. Then if there is doubt in regard to any bird graded later, a comparison with those on the rack will indicate the correct grade. Graders are expected to attend one of the turkey-grading schools held in various parts of the country each year, to keep in touch with newest developments and in line with other graders.

There are always a number of turkeys near the median line between two grades. In grading at a shipping point, such "line birds" are usually placed in the lower grade because natural changes, occurring in transit, often would necessitate placing them in a lower grade by the time they reach the market. When the grading is done at the terminal market, the line birds may more safely be placed in the higher grade.

When producers bring dressed turkeys to concentration plants, they may want information about the methods of grading or reasons for placing a certain bird in a certain grade. Graders who are supervised by the Government are advised to make careful and patient explanation to all inquirers who have an interest in the birds being handled. Strict grading eventually benefits the producers by creating a demand for turkeys so graded. On many markets a preference is shown for the United States graded and labeled turkeys. When producers understand this thoroughly they are ready to endorse the work.

Graders keep in close touch with the State supervisor who is their immediate supervising officer. In case of argument or uncertainty this supervisor is consulted. The supervisor is held responsible for the grading work in his State and, in turn, holds each grader responsible for the work performed by him. Through these and similar measures a grading service has been built up that is gradually benefiting producers, dealers, and consumers.

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